



Using Linked Data to Enhance the User Experience

Linking library data to VIAF IDs to enrich the catalog at Smithsonian Libraries

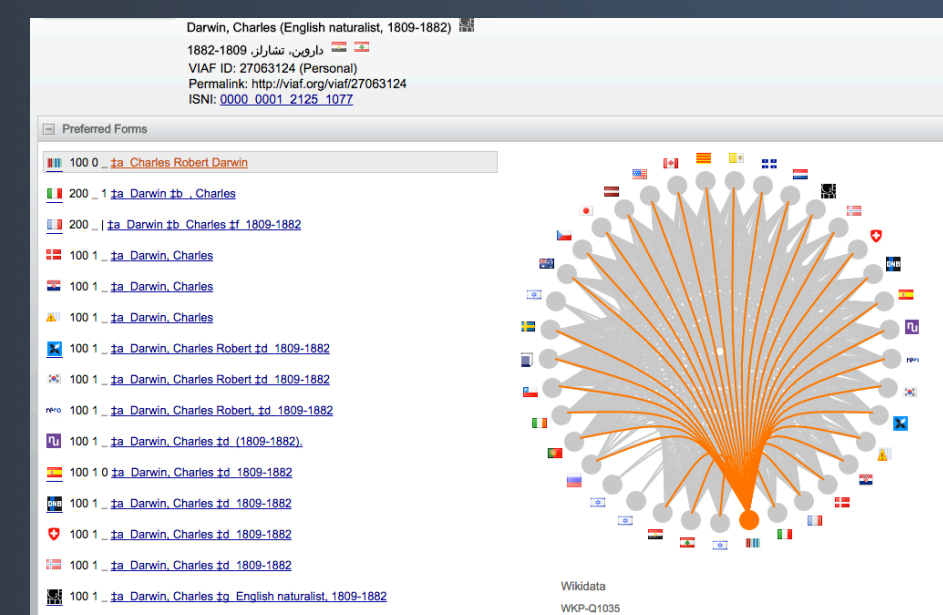


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Introduction

The Head of Web Development at Smithsonian Libraries is interested in using RDF and Linked Data to enhance their catalog. I created a procedure to reconcile library author files against the Virtual International Authority File (VIAF). With VIAF IDs, linkages to other data sources can be made to pull external information into The Libraries' catalog.

What is VIAF?



VIAF is a service that links data from national and regional libraries into one "super authority" record designated with a unique VIAF ID. The example to the left is a screenshot of results for Charles Darwin. VIAF's freely available data allows for customization and international bibliographic control (OCLC.org, 2016).

Figure 1. VIAF personal name result for Charles Darwin
<http://viaf.org/viaf/27063124>

What is Linked Data?

Linked Data allows dynamic sharing of information between systems and is both machine and human readable. It requires standardized formats (RDF, SPARQL) and uses HTTP URIs to name resources. Ensuring your data links elsewhere is a necessary step to create a web of data. (Berners-Lee, 2006).

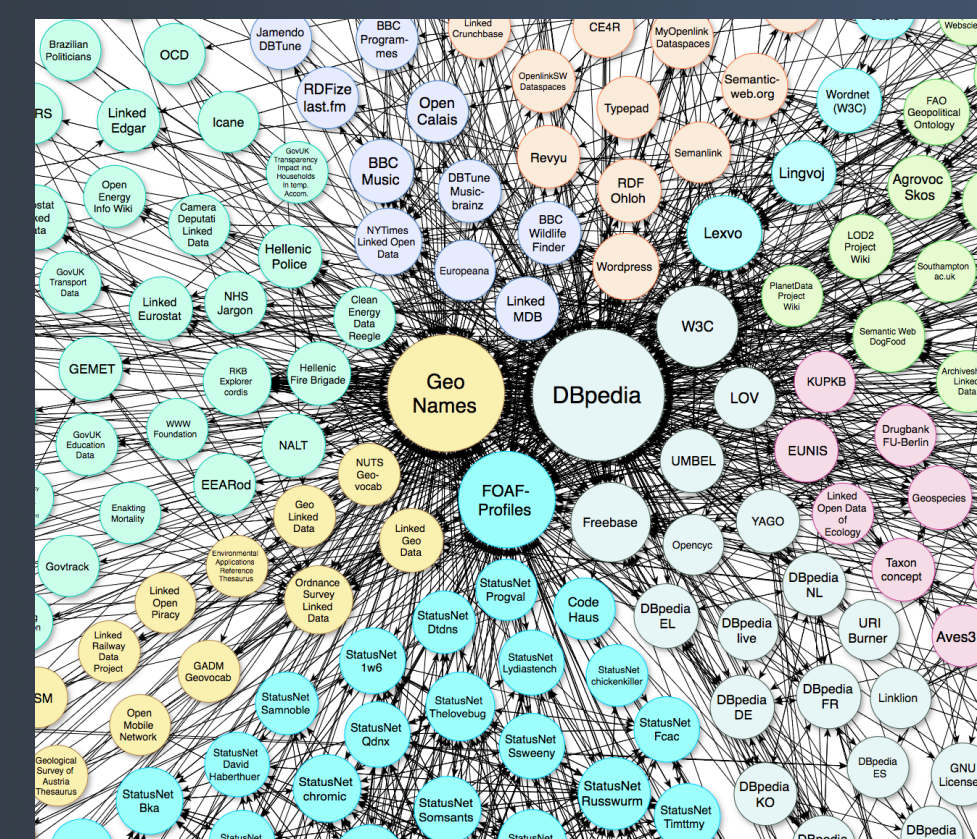


Figure 2. Visualizing Linked Data
<http://lod-cloud.net/>

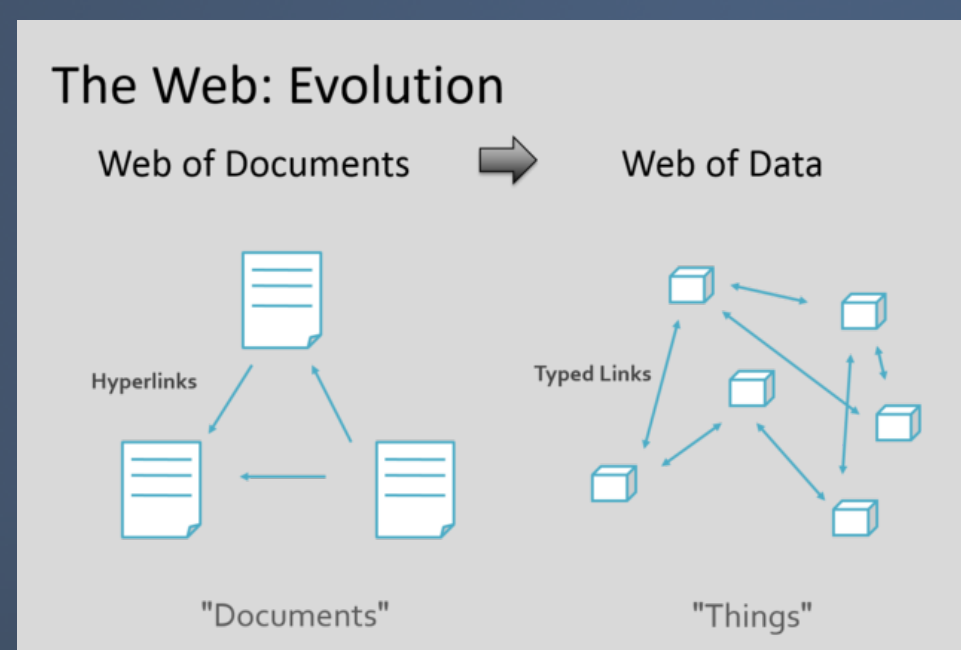
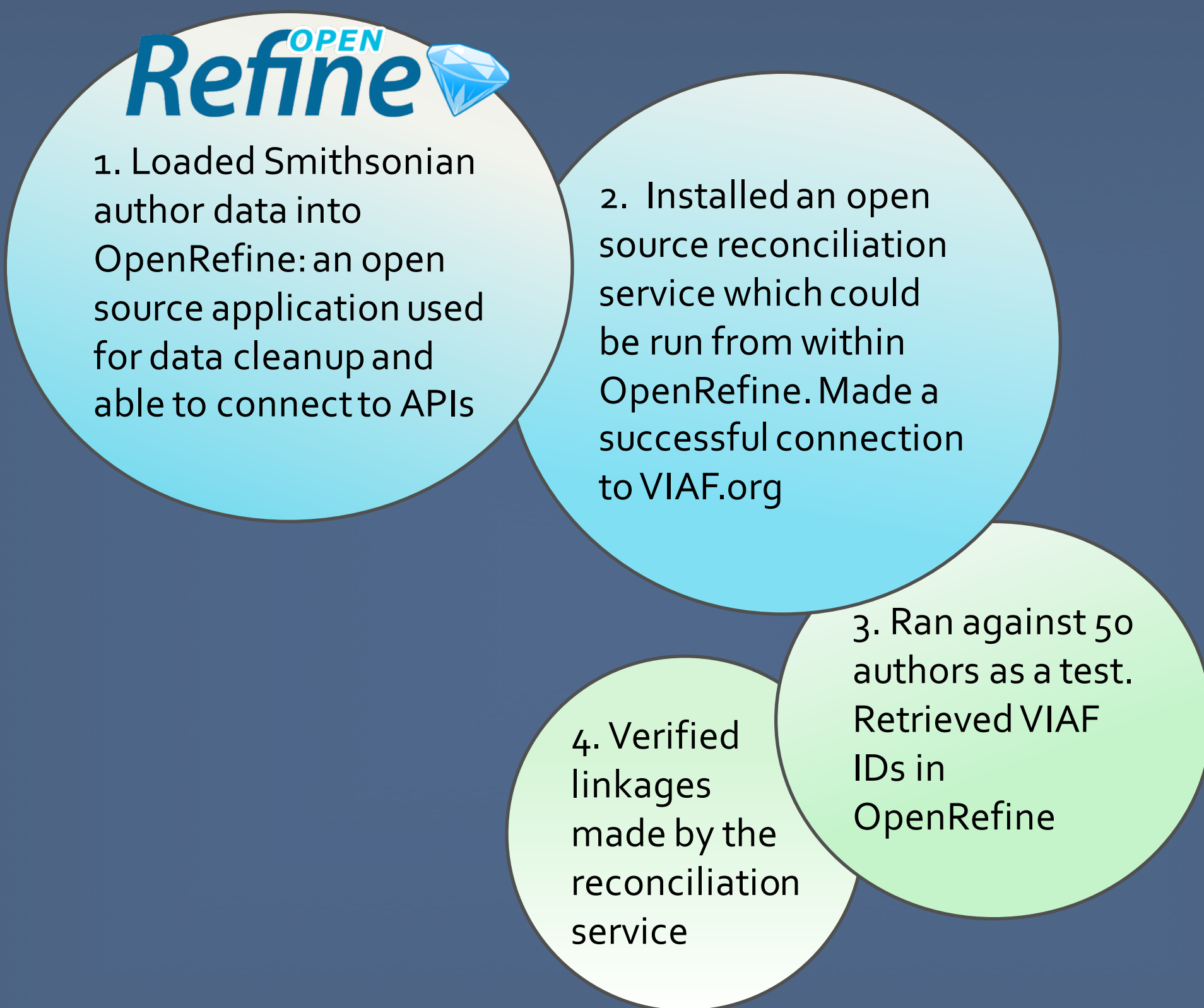


Figure 3. From a web of documents to a web of data. <http://bit.ly/2evagel>

Applying VIAF IDs to Smithsonian Libraries Data



Future Applications: Why did we do this?

Google is a great example of how linked data can enhance search results. In the screenshot to the right, linked data appears alongside search results.

Smithsonian Libraries can use VIAF IDs to make similar connections from within their catalog, creating a richer user experience.

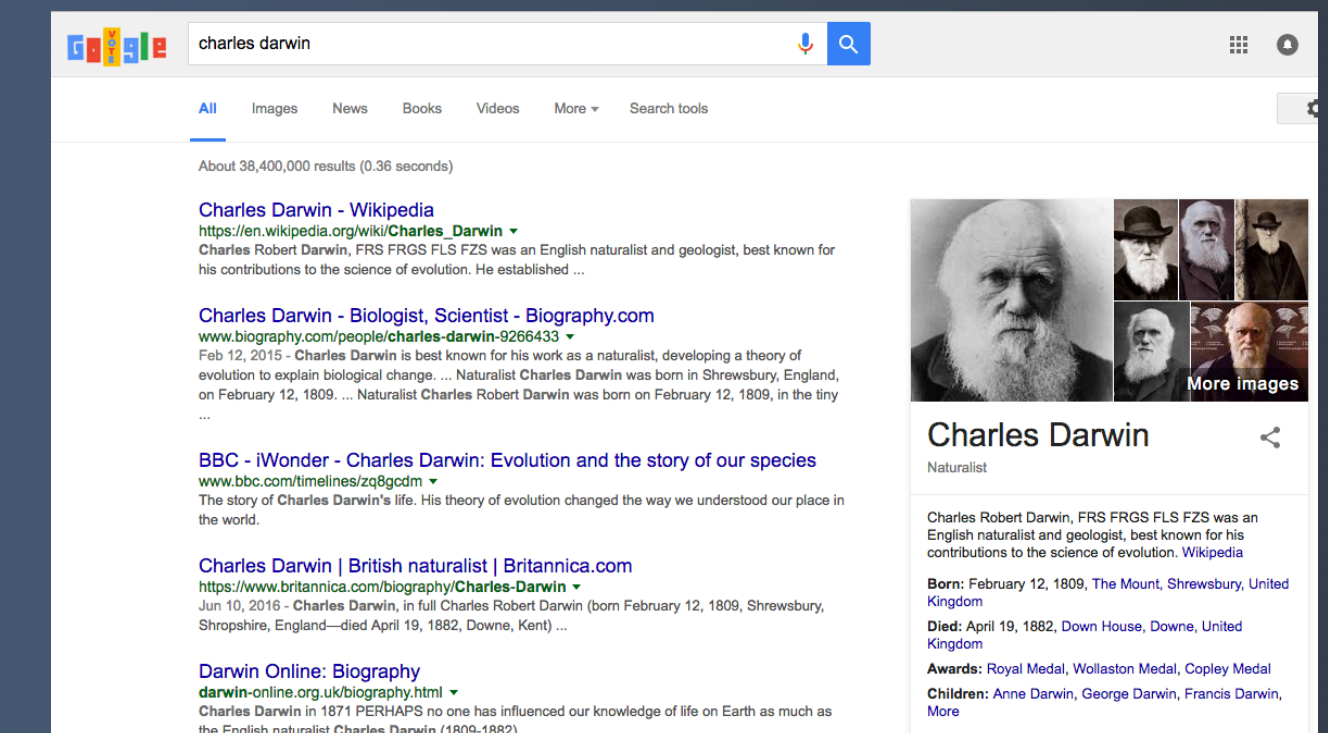


Figure 4. Google and the Google logo are registered trademarks of Google Inc., used with permission



Figure 5. Charles Darwin entry in Wikipedia
https://en.wikipedia.org/wiki/Charles_Darwin

Results

- I attempted reconciliation with 50 persons and 36 VIAF IDs were retrieved
- This was not a purely conclusive test since individual author names may present varying issues
- With this particular process, persons and corporations had to be reconciled separately using refine_viaf (Version 1.5.2, Chiu, 2016)
- A librarian should manually verify all authors are linked to the correct authority file in VIAF to ensure accuracy
- As new software and technology is always on the rise, Smithsonian Libraries may continue testing new ways to pull in VIAF IDs
- The exploratory project was a success--we tested one possible way VIAF IDs could be linked to library data using OpenRefine

References

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Fig. 4. Google. (n.d.). [Charles Darwin search]. Screenshot by Author.
Fig. 5. Charles Darwin. (n.d.). In Wikipedia, The Free Encyclopedia. Screenshot [edited] by the Author.

Special Thanks:

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